Montana Fish, Wildlife & Parks

DECISION NOTICE AND FINAL ENVIRONMENTAL ASSESSMENT
Construction of a Fish Barrier, Removal of Non-native Fishes with Rotenone, and Restoration of Westslope Cutthroat Trout to North Fork Highwood Creek (Highwood Mountains)

April 15, 2010

Project Proposal:

Montana Fish, Wildlife & Parks propose removal of non-native fish in North Fork Highwood Creek (NFHC) and its tributaries upstream of a constructed fish barrier using EPA approved piscicides containing rotenone (approximately 4 miles of stream; Figure 1). After removal of non-native fishes, NFHC would be restored with locally obtained, non-hybridized westslope cutthroat trout (WCT). The proposed area of restoration begins one mile upstream of the NFHC trailhead on Lewis and Clark National Forest (Highwood Mountains) Three miles of NFHC downstream of the restoration area would continue to be managed as a non-native trout fishery (primarily brook trout). It is predicted that a restored population of WCT in NFHC would be very robust (>2,500 individual fish). Once the WCT population is restored; management alternatives, which include limited harvest, would be considered. This project would create an opportunity to fish for the only trout native to the Missouri River Drainage in a relatively pristine stream with ample public access.

Justification:

NFHC is a headwater tributary to Highwood Creek which drains the northwestern aspect of the Highwood Mountains. NFHC is located entirely within the bounds of Lewis and Clark National Forest. NFHC currently supports non native brook trout and a few hybridized westslope cutthroat trout (rainbow trout X westslope cutthroat trout crosses) in its headwaters.

Highwood Creek downstream of NFHC was previously stocked with brook trout (172,879 from 1929 to 1952), brown trout (18,000 in 1938), Yellowstone cutthroat trout (41,000 from 1928 to 1931), and rainbow trout (24,243 from 1949 to 1976). Angling pressure in Highwood Creek was 829 days in 2007. There are no estimates for angling pressure in NFHC. Angling satisfaction in Highwood Creek (sample size of 17) was rated as 3.5 out of 5.

Historically Highwood Creek would have supported WCT in approximately 55 miles of stream. Currently, less than 2 miles of headwater stream in Highwood Creek (4% of historical habitat) supports non-hybridized WCT. Moreover, non-hybridized WCT occupy only about 8% of their historical range in the western United States and less than 4% of their historical range in northcentral Montana within the Missouri River Drainage. Primary threats to WCT include competition and hybridization with non-native rainbow trout and competition with brook trout. Projects which restore WCT to historically occupied habitats are necessary to prevent extinction of WCT. In addition, efforts to stabilize and increase WCT populations would likely prevent a future listing of WCT under the Endangered Species Act. The prevention of an ESA listing would help avert potential additional federal regulatory restrictions.

Environmental and Social Impacts of Project:

Funding for construction of the fish barrier on NFHC was obtained through competitive grants, including, Future Fisheries of Montana, National Fish and Wildlife Foundation, PPL Montana, and the Montana Trout Foundation. Prior to construction of the proposed barrier, additional environmental review will occur within the USFS through the Federal NEPA process. Construction activities are predicted to occur over a two to three week period. Access to USFS trail 423 will be limited during construction (1 to 3 weeks) and during treatment with piscicides (3 to 4 days). Alternate trails would be available during these time periods (Figure 1). Construction activities will follow best management practices and every effort will be made to minimize input of sediment into NFHC. Prior to barrier construction, the following permits will be obtained: SPA 124 Permit (Montana Stream Protection Act), 318 Authorization (DEQ Short-Term Water Quality Standard for Turbidity), and a 404 Permit (Federal Clean Water Act).

Rotenone is a naturally occurring substance derived from the roots of several tropical and sub-tropical plants in the bean family. All piscicides kill through biochemical processes at the cellular level which make it impossible for the fish to use oxygen absorbed in the blood and needed in the release of energy during cellular respiration. Rotenone naturally degrades within 1- 8 weeks through hydrolysis and exposure to sunlight and would likely degrade in less than two weeks in this application. Rotenone applied to North Fork Highwood Creek will be neutralized with potassium permanganate. FWP expects the impacts to non target invertebrates within the project area to be minimal with ample source areas for re-colonization of invertebrates lost during the treatment. FWP also expects minimal impacts to amphibians and reptiles as a result of this project by implementing the project when larval life stages are less likely to be present in the area. FWP expects this project to have little or no adverse effect on mammals or birds that use the area. Ample research has shown that rotenone is not toxic to mammals and birds at the fish killing concentrations that will be used for this project. This project is also not likely to cause displacement of local populations of birds or mammals; project personnel activity on NFHC during the construction project and during piscicide treatment will briefly be more intense than existing recreational use (approximately two weeks during construction and one week during piscicide treatment). The risk that rotenone will enter and be mobile in groundwater is minimal. Tests have shown that rotenone does not transport through sediments. Although there

are no domestic wells located within the project area, water users downstream near NFHC were notified of this project. FWP will follow the manufacturer's label recommendations that advise using sentinel fish to ensure the product has adequately degraded prior to re-stocking of cutthroat trout or cessation of potassium permanganate detoxification. Risks to applicators are substantially greater than risks to the general public because of the necessity of handling the compounds at full strength. Measures to reduce risks to applicators include training in the proper handling of piscicides, and the use of safety equipment listed on the product labels such as respirators, goggles, and gloves. At least one, and most likely several, Montana Department of Agriculture certified pesticide applicator(s) would supervise and administer the project. Rotenone and potassium permanganate would be transported, handled, applied, and stored according to the label specifications to reduce the probability of human exposure or spill. Health risk to project personnel will be minimized through the use of proper planning, preparation, and the use of personal protective gear. Prior to piscicide treatment, a Department of Environmental Quality 308 permit will be acquired (authorization for short term exemption of surface water quality standards for the purpose of applying a fish toxicant).

There would be a temporary loss of angling opportunity in upper NFHC between the time of fish removal and for several years after restoration with WCT. NFHC upstream of the proposed fish barrier should be fully colonized with WCT within 5 years of project implementation. In most cases cutthroat trout fisheries in streams in Montana are catch and release only. After colonization of upper NFHC we would evaluate whether the fishery could support limited harvest. If possible, regulations would be changed to allow anglers the option of harvesting WCT for consumption. After recolonization of WCT the NFHC fishery would provide an extremely unique opportunity to fish for Montana's state fish in a relatively pristine location on the Lewis and Clark National Forest.

Cumulative Effects:

A separate barrier and treatment project is planned for Smith Creek approximately 4 miles downstream of the proposed project (separate EA). Construction of both these projects will likely occur during the same time period to save costs on construction mobilization. Because of the distance between these projects, no aspect of the impacts would be cumulative in nature. Moreover, completing both these projects under the same time frame will limit the increased presence of construction personnel to one time period rather than consecutive years. Piscicide treatments may occur during the same time period or be spread out over different years. The distance between these projects is ample and thus there should be no cumulative effects related to these piscicide treatments.

Public Involvement:

In compliance with the Montana Environmental Policy Act, an Environmental Assessment was prepared and circulated for public comment on March 12, 2010. A scoping letter, which included a project summary and area map, was mailed to 23 local landowners and 29 conservation groups, Tribes, non-governmental, and government

organizations. Copies of the EA were made available at the State Library in Helena, the FWP Region 4 Headquarters in Great Falls, and the FWP internet web site. One positive response to the proposed project was received during the comment period.

Decision:

Based on the Environmental Assessment, public comment, and the current high risk of extinction of genetically pure WCT in the Highwood Drainage, it is my decision to proceed with Alternative 2, the proposed action. Alternative 2 involves construction of a fish barrier on North Fork Highwood Creek, removal of upstream existing fish populations of non-native brook trout and hybrid trout, and re-establishment of a pure strain population of WCT. The Draft Environmental Assessment, together with this decision notice, will serve as the final document for this proposal. This alternative provides the best opportunity to benefit the conservation and restoration of WCT, helps relieve ESA listing pressure and also serves to illustrate the State's commitment to perpetuating native fish species. This project will help preserve WCT in the Highwood Drainage by replicating one to two of the remaining populations of WCT and expanding the overall range of WCT by an additional 4 miles. I find there to be no significant impact on the human or physical environment associated with this project, except to help ensure the long-term persistence of pure, locally adapted WCT in the Missouri River Drainage. Therefore, I conclude the Environmental Assessment is the appropriate level of analysis, and that an Environmental Impact Statement is not required.

Date: 4/29/2010

Gary Bertellotti
Region 4 Supervisor
Great Falls, Montana

Note: A determination was made in spring 2010 that adequate funding was not available to implement this project. Other projects were judged to be greater priorities of staff time; consequently, this decision notice, although prepared, was not fully completed until staff had greater time to address it and funding issues appeared to be resolved.

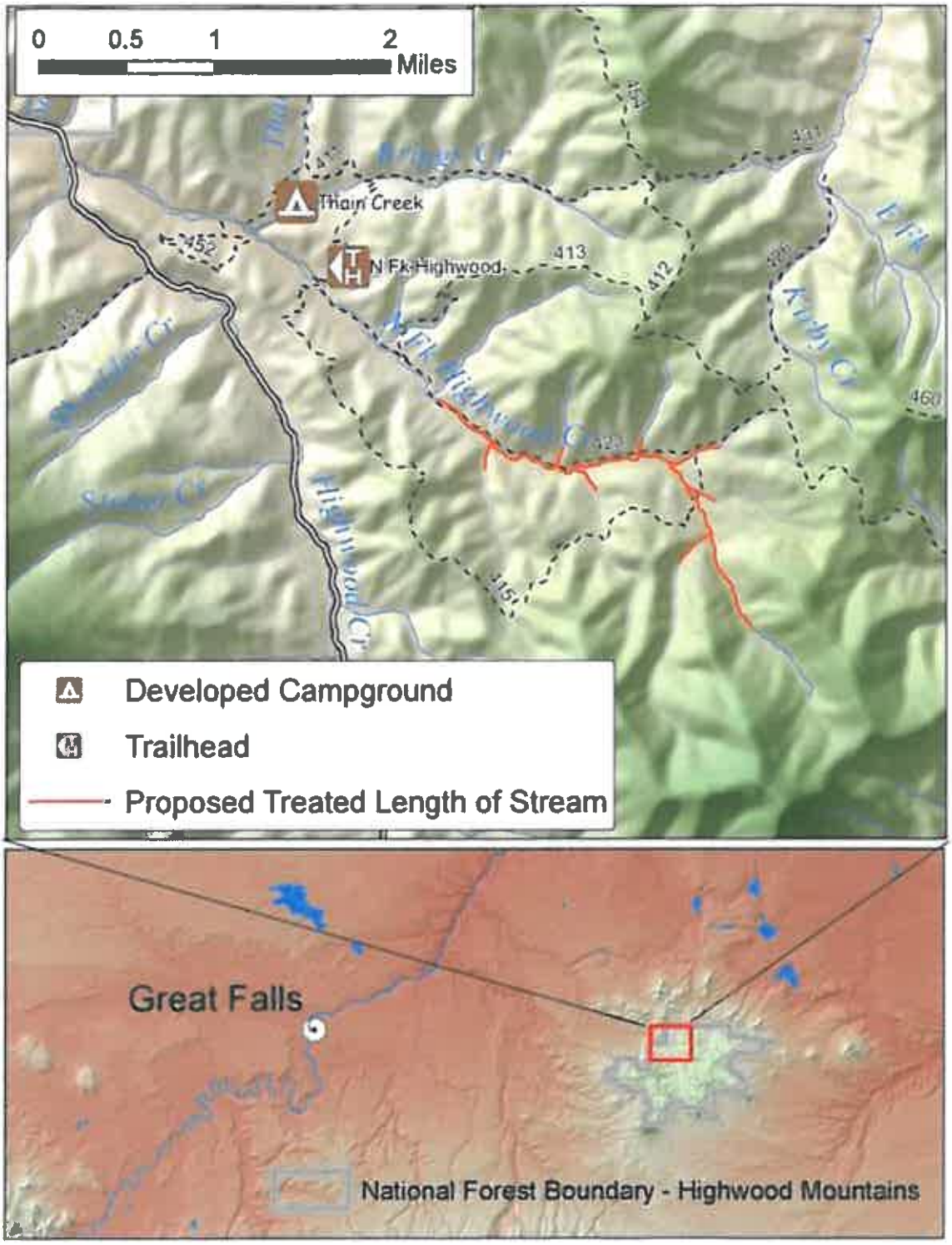

Figure 1. Map of the project area